

Title (en)
SYSTEMS AND METHODS FOR AUDIO SIGNAL GENERATION

Title (de)
SYSTEME UND VERFAHREN ZUR ERZEUGUNG VON AUDIOSIGNALEN

Title (fr)
SYSTÈMES ET PROCÉDÉS DE GÉNÉRATION DE SIGNAUX AUDIO

Publication
EP 4241459 A4 20240103 (EN)

Application
EP 21941373 A 20210514

Priority
CN 2021093790 W 20210514

Abstract (en)
[origin: WO2022236803A1] The method for audio signal generation may include obtaining a bone conduction audio signal and an air conduction audio signal. The method may also include obtaining a trained machine learning model that provides a mapping relationship between a set of bone conduction data derived from a specific bone conduction audio signal and one or more sets of equivalent air conduction data derived from a specific equivalent air conduction audio signal. The method may also include determining a target set of equivalent air conduction data corresponding to the bone conduction audio signal using the trained machine learning model based on the bone conduction audio signal and the air conduction audio signal. The method may further include causing an audio signal output device to output a target audio signal representing the speech of the user based on the target set of equivalent air conduction data.

IPC 8 full level
G10L 21/02 (2013.01); **G10L 25/30** (2013.01); **H04R 1/08** (2006.01); **G10L 21/0208** (2013.01)

CPC (source: EP KR US)
G06N 20/00 (2019.01 - KR); **G10L 15/02** (2013.01 - US); **G10L 15/063** (2013.01 - US); **G10L 15/142** (2013.01 - US);
G10L 15/1815 (2013.01 - US); **G10L 21/003** (2013.01 - EP); **G10L 21/0232** (2013.01 - US); **G10L 25/30** (2013.01 - KR);
H04R 1/08 (2013.01 - US); **H04R 3/005** (2013.01 - EP KR); **H04R 23/02** (2013.01 - US); **G10L 25/30** (2013.01 - EP);
G10L 2015/025 (2013.01 - US); **G10L 2015/027** (2013.01 - US); **G10L 2021/02165** (2013.01 - US); **H04R 2460/13** (2013.01 - EP KR)

Citation (search report)

- [X1] WO 2021046796 A1 20210318 - SHENZHEN VOXTECH CO LTD [CN]
- [X1] WO 2020225294 A1 20201112 - GN HEARING AS [DK]
- [X1] ZHENGYOU ZHANG ET AL: "Multi-sensory microphones for robust speech detection,enhancement and recognition", ACOUSTICS, SPEECH, AND SIGNAL PROCESSING, 2004. PROCEEDINGS. (ICASSP ' 04). IEEE INTERNATIONAL CONFERENCE ON MONTREAL, QUEBEC, CANADA 17-21 MAY 2004, PISCATAWAY, NJ, USA,IEEE, PISCATAWAY, NJ, USA, vol. 3, 17 May 2004 (2004-05-17), pages 781 - 784, XP010718306, ISBN: 978-0-7803-8484-2
- [A] JASHA DROPO ET AL: "EVALUATION OF SPLICE ON THE AURORA 2 AND 3 TASKS", ICSLP 2002 : 7TH INTERNATIONAL CONFERENCE ON SPOKEN LANGUAGE PROCESSING. DENVER, COLORADO, SEPT. 16 - 20, 2002; [INTERNATIONAL CONFERENCE ON SPOKEN LANGUAGE PROCESSING. (ICSLP)], ADELAIDE : CAUSAL PRODUCTIONS, AU, 16 September 2002 (2002-09-16), pages 29, XP007011757, ISBN: 978-1-876346-40-9
- See also references of WO 2022236803A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2022236803 A1 20221117; CN 116964669 A 20231027; EP 4241459 A1 20230913; EP 4241459 A4 20240103; JP 2024504435 A 20240131; KR 20230125304 A 20230829; TW 202244898 A 20221116; US 2023317092 A1 20231005

DOCDB simple family (application)
CN 2021093790 W 20210514; CN 202180089082 A 20210514; EP 21941373 A 20210514; JP 2023544734 A 20210514; KR 20237025917 A 20210514; TW 111117767 A 20220512; US 202318328760 A 20230604